EXHIBIT 31

IN THE UNITED STATES BANKRUPTCY COURT
FOR THE DISTRICT OF DELAWARE

CHAPTER 11

IN RE:
W.R. GRACE & CO., et al.,

Debtors.

Case No. 01-1139 (JFK)

DEPOSITION OF:
Dr. Peter Lees
October 29, 2007
Washington, D.C.
Lead: Walter Slocombe, Esquire
Firm: Caplin & Drysdale

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my work, broadly speaking, relates to exposure and reconstruction for many substances.

With respect to asbestos, it would begin in the '90s and is limited to Grace-related materials.

Q And what information -- what data did you rely on in those historic exposure reconstructions in the 1990s other than the studies and reports which are referenced in your reports in this case, which we will come to in due course?

A Okay. In exposure reconstruction, you look at any and all of the available data. I believe that the -- that what is presented in my reports -- well, actually, what was available in the earliest days of the '90s was really limited to the question of Monokote III exposure.

I'm not sure I am giving a clear answer to your question. But there

of disease and time, I mean, there are different time periods. And I think, clearly, it's relevant to the course of a day; but it's also relevant to, you know, a year or ten years or a decade or whatever.

Q Yes. But is it your contention that the only factor which is relevant to the risk resulting from exposure to airborne asbestos fibers is the cumulative exposure over time and not the magnitude of the peaks?

A The cumulative exposure is the input in -- if we are talking asbestos or any other carcinogen, cumulative exposure is the standard input into all epidemiologic studies I know, and all government and other risk assessments that I know.

Q The June and July reports that you did present job exposure matrices for exposure to Grace products?

A Yes.

the early 1990s, in my work with Grace at the time.

Q And I'm sorry.

A And you know, as a part of this activity, I requested from Grace all of their reports that talked anything about exposure anywhere at any product.

Q So do I correctly understand that you first became aware of at least some of these reports when Grace provided them to you in the early 1990s when you started to work as a Grace consultant?

A Initially, yes.

Q Do you know where Grace got them?

A Well, some of the reports were from consultants that I presumed to have been hired by Grace, and so I can understand where they got those reports. There were three reports from -- measuring exposures related to the application of Monokote III. There are three reports from

Q And rather than who paid for it?

A Yes.

Q What did you do to evaluate the methodology and the soundness of the seven reports on which you rely?

A Well, again, the criteria are laid out in my June report, and they spoke to things about, for instance, the use of a standard methodology, identification of product, description of what was going on, so that, you know, there was a basis for saying that they did it right.

Q These reports vary a good deal, don't they, in how much detail they will tell you about how the study was done and what the circumstances were?

A There is a breadth of detail, yes.

Q But isn't the fact that -- and I don't mean this necessarily critically" isn't the fact that you used all of the

data you were given, and this one exception, the manufacturing process, you didn't reject any of the data you were given?

MR. McMILLIN: Objection. You mean as of Monokote III?

MR. SLOCOMBE: As to Monokote III.

A Sure. Monokote III, all of the studies met the bar. I can tell you, you know, more broadly that there were something like 300 individual studies or reports that were evaluated as a part of this exposure assessment, and around 50 of them were rejected.

Q But none of these had to do with Monokote III?

A That's correct.

Q And appendix G is for products containing both vermiculite and chrysotile that were sprayed, correct?

A That's what we were just

Q Do you have an opinion about whether these 21 readings is a representative sample of the population of all of the instances in which Monokote III was sprayed on?

A I do.

Q And what is that?

A The bottom line is that it -- I hold it to be representative. And there probably are two main reasons that I believe that to be so.

First of all is the relative tightness of the data in terms of their they're in -- in terms of variability, it's what I would normally expect to see within a population.

And the second thing is, with respect to possible bias in the data, I averaged up the exposure concentrations from the studies done by Grace. And I averaged up the concentrations done by the state health departments. And they are

virtually identical.

You know, I can also say that I believe -- in terms of bias, I think the -- I think the lowest study with the lowest concentration was actually done by a state health department, and the one that shows the highest was actually Grace.

So I don't have any reason to believe there is any particular bias in the sampling, and its relative tightness or homogeneity, given the confidence that that is a good and representative sampling.

Q You speak of the relative tightness of the readings. What, if any, statistical analysis did you do to measure the tightness of the readings?

A I looked at the range.

Q What do you mean you looked at the range?

A Well, I mean the highest and the lowest. I did not calculate standard deviation, if you will. My evaluation of

the variability was limited to an observation of the maximum and the minimum values.

Q Is it the practice in the field of industrial hygiene not to calculate a standard deviation for a set of measurements like this?

A It would really depend on its use.

Q And in what respect would it depend on its use?

A Well, with respect to my task here, the number that would go forward into subsequent analyses -- in other words, the number that would be used, would be the mean exposure.

And so in order to calculate standard deviations or whatever, that's just not a number that would be carried forward into subsequent analyses, so I didn't explicitly do it in this case.

Q If you were submitting an

analysis like this to a peer-reviewed journal, would you calculate a standard deviation of the results?

A It's conceivable. Yeah.

Q You said that if I -- and I know your counsel will object that I am mischaracterizing; but maybe I am misunderstanding -- you said that you were going to produce some mean, which is an average, correct?

A Correct.

Q In the field of industrial hygiene, if you were making an analysis like this, would you limit the presentation to the mean of the numbers?

A Again, it would depend on why I was presenting the data, for what purpose the data were developed.

Q What would be the conditions under which -- in submitting your work for publication to the profession, that you would not calculate a standard deviation of

the results? And by "results," I mean the readings.

A You know, it would not be unusual, maybe even standard, to calculate the standard deviation. My point and the reason that I didn't do it in this case, was that, in the subsequent risk analyses done by others, those measures of variability were not incorporated in there and are not typically incorporated in their estimates of risk.

So there was really -- in this case there was no compelling reason to calculate standard deviations.

Q Who told you that -- well, the standard deviation is a measure roughly, in layman's terms, of the variance of -- the degree to which the results will deviate from the mean; is that correct?

A That's correct.

Q Who if anyone instructed you that, in subsequent use of your data, the

degree to which the readings deviated from the mean would not be taken into account?

A In terms of instruction, I don't believe anybody told me. It is in the -- it is standard practice in epidemiologic studies in order to calculate the risk associated with a certain exposure.

It is the standard practice to use the average, and that's the -- and for cumulative things like this, in any average exposure that is carried forth into the epidemiologic analyses, and it is not at all typical to.

Q In the field of epidemiology, to the degree you are familiar with it, is it not the practice to apply the technique of calculating a standard deviation to the readings which are obtained in the studies?

A They calculate confidence intervals on their risks, yes.

Q That is the equivalent, isn't

various sources of information used to estimate exposure will provide a range of exposure estimates."

Do your tables show a range of exposures as the final result?

A The summary tables do not show the range, but the initial table, typically, table one of the appendices, shows a range. Yes.

Q Why didn't you show ranges in your summary report?

A As I described before, the product of my work that got carried forward into the risk analyses was the average exposure, which is the standard measure that is used in epidemiologic or risk analyses.

So I provided, if you will, just the bottom line useful information to the risk assessors.

Q Is it your position that the average readings obtained in the

Vague as to time frame. You can answer.

Q The time frame would be when Monokote III was being used.

A Okay. As I have said several times in my report and in our discussions, there is variability in exposure measurements for a whole variety of reasons that you have -- some of which you have touched on -- is expected.

And taking the next step, that, if you talk about an individual worker, yes, on some days there they are going to be high. But on other days they are going to be low, above the average and below the average.

And, over time, actually, as you work more and more, if you will, your -- the variability will decrease, and your average for an individual would look more and more like the average for the population.

sprayer working with Monokote had the exact same exposure to asbestos fibers in the course of his work?

MR. McMILLIN: Objection. Vague as to length of time. You can answer.

A Well, there are different components of exposure. The magnitude, the frequency and the duration are the three considerations here. So that the --

Q All right. Magnitude?

A Magnitude. The number that I have assigned here is the average. I will readily admit to you the possibility that some individuals were exposed above that average. Some were exposed below that average.

But, again, you know, the more experience a person has, sometimes you are high sometimes, you are low. The more you work, the more your average as an individual looks like the average of the

So that I would -- if you had a bunch of 15-minute exposure measures, I expect very high variability; and it's shown there as a factor of an order of magnitude.

If you compared a longer averaging time, eight-hour measures, the variability would be less, and, similarly, if you went to longer time periods, like a year, the variability would be even less.

Q And that's a matter of speculation; isn't it? You don't actually have any data about what the exposures were for Monokote spraying over a full day of measurement, much less over a year?

MR. McMILLIN: Objection. Compound.

A The comment is a generality, if you will, of all of the exposure data regardless of what the substance is.

Q Could you read that back.

(Reporter read back last

offer any opinions on what kinds of evidence courts, in fact, permit to be considered by the jury or the trier of fact when there is an issue of an individual plaintiff's past exposure to asbestos from a defendant's products?

A Since I don't think I have any knowledge about what courts do and do not permit, I guess my answer is no. I won't.

Q Is there any consensus in the field of industrial hygiene that the only evidence that should be considered in evaluating the exposure of an individual is the result of studies of average asbestos fiber levels in broadly similar operations?

MR. McMILLIN: Objection. Vague. You can answer.

A There are two parts to that question. The first part is having to do with average exposures. And, certainly, within the field of occupational health, as I have said multiple times during this

Q And there is a statistical analysis called "analysis at variances"; isn't there?

A I have heard of it.

Q Okay. Did you use that in analyzing the PCM values that you analyzed?

A It's been quite a while since I took biostatistics, but I'm not sure how analysis of variance -- I'm sorry -- would be in this situation, in any -- either of -- either of -- I didn't apply it.

Q And why didn't you?

A Again, what I have produced here is the standard input to epidemiologic risk assessment, the kind of data that OSHA has used to do the risk assessment that lies behind their standard; that is the average exposure.

Q Is the variability of cumulative exposure faced by individuals an important aspect of predicting the risk of disease?